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NOTICE OF ALLOWANCE AND FEE(S) DUE

22971   7590   08/20/2008

MICROSOFT CORPORATION
ONE MICROSOFT WAY
REDMOND, WA 98052-6399

EXAMINER
SHECHTMAN, CHERYL MARIA

ART UNIT	PAPER NUMBER
2163	

DATE MAILED: 08/20/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,679	01/26/2004	Eric Watson	303248.01	9444

TITLE OF INVENTION: QUERY PREPROCESSING AND PIPELINING

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1440	$0	$0	$1440	11/20/2008

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT.
PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS.
THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON
PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE
MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS
STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES
NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS
PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM
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DUE.

HOW TO REPLY TO THIS NOTICE:

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If the SMALL ENTITY is shown as YES, verify your current
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A. If the status is the same, pay the TOTAL FEE(S) DUE shown
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B. If the status above is to be removed, check box 5b on Part B -
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and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now
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II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office
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request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing
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III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to
Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of
maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUE FEE
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

_____ (Depositor's name)

_____ (Signature)

_____ (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,679	01/26/2004	Eric Watson	303248.01	9444

TITLE OF INVENTION: QUERY PREPROCESSING AND PIPELINING

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1440	$0	$0	$1440	11/20/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
SHECHTMAN, CHERYL MARIA	2163	707-005000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE   (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

☐ Issue Fee

☐ Publication Fee (No small entity discount permitted)

☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

☐ A check is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

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This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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EXAMINER
SHECHTMAN, CHERYL MARIA

ART UNIT	PAPER NUMBER
2163	

DATE MAILED: 08/20/2008

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 416 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 416 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

	Application No.	**Applicant(s)**
Notice of Allowability	10/764,679	WATSON ET AL.
	Examiner	**Art Unit**
	CHERYL M. SHECHTMAN	2163

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to <u>5/20/08</u>.

2. ☒ The allowed claim(s) is/are <u>1-41</u>.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

       a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

          1. ☐ Certified copies of the priority documents have been received.

          2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

          3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

     * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of
        Paper No./Mail Date _____.

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08),
    Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit
    of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413),
    Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

/Wilson Lee/
Primary Examiner, Art Unit 2163

DETAILED ACTION

1.   This communication is in response to Amendment filed May 20, 2008. Claims 1-
41 are pending. Claims 1, 16, 27, and 35 are amended.

EXAMINER'S AMENDMENT

2.   An examiner's amendment to the record appears below. Should the changes
and/or additions be unacceptable to applicant, an amendment may be filed as provided
by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be
submitted no later than the payment of the issue fee.

       Authorization for this examiner's amendment was given in a telephone interview
with James Strom on August 5, 2008.

       The application has been amended as follows:

Claim 35.   For use with a search engine query preprocessor, an apparatus for
executing a query made up of a string of query terms on selected data sources, a
data source comprising a source of data that can receive queries and execute the
queries by searching for and returning data matching the queries, the apparatus
comprising:

       a processor and a system memory;

       means for obtaining context information about the origin of the query, the
obtaining being performed before executing the query, wherein the query is a new query
for which a user is requesting data corresponding to the query;

means for classifying the query as one of a set of query categories by automatically selecting one of a set of query categories based on the presence of query terms and context information, the classifying being performed before execution of the query;

means for automatically modifying the query to include the query category, the modifying being performed before execution of the query; and

means for executing the modified query on one of the data sources that contains information related to the query category, the one of the data sources having been selected based on its corresponding to the query category, the executing comprising searching for data of the one or more of the data sources that matches the query.

Response to Arguments

3.   Applicant's arguments, see pages 13-14, with respect to the rejection(s) of claim(s) 1-41 under 35 USC 102(e) and 103(a) have been fully considered and are persuasive. Therefore, the 35 USC 102(e) and 103(a) rejections of the claims have been withdrawn.

Allowable Subject Matter

4.   Claims 1-41 are allowed.

5.   The following is an examiner's statement of reasons for allowance:

Referring to claim 1, Bailey discloses for use with a search engine, a query pipelining system that selectively executes a user entered query made up of a string of query terms on a plurality of data sources comprising:

a query term recognizer that examines the query terms and identifies and automatically groups query terms;

a query type recognizer that examines the query terms and categorizes the query as one of a plurality of query types;

a query intent personalizer that gathers information about the user entering the query and provides this information to the query term recognizer and query type recognizer;

a query modifier that modifies the user entered query based on the term grouping determined by the query term recognizer and the query type determined by the query type recognizer;

a query federation module that selects data sources from the plurality of data sources and executes the modified query on the selected data sources.

Referring to claim 1, Fries discloses automatically grouping query terms after it is determined that the query terms are intended as a phrase.

Referring to claim 1, Conklin (US Patent 6,405,190) discloses a query pre-processing system wherein a user enters a free format search query composed of terms. Conklin also discloses query preprocessing that includes identifying query terms

as one of many stored phrases, grouping the input query terms into groups or

categories of value terms, and modifying the user query before executing it (see

Summary of Conklin reference).

However, Neither, Bailey taken either alone or in obvious combination discloses

all of the claimed subject matter including:

a query pre-processing pipelining computing system that prepares to selectively

execute a user entered query made up of a string of query terms on one or more of a

plurality of data sources, the computing system comprising:

a processor and/or storage media configured with:

a query term recognizer that, before execution of the query, examines the

query terms and identifies and automatically groups query terms that are

intended as a phrase, wherein the query is a new query for which the user is

requesting data that satisfies the query;

a query type recognizer that, before execution of the query, examines the

query terms and automatically categorizes the query as one of a plurality of

query types;

a query intent personalizer that gathers information about the user who

entered the query and provides this information to the query term recognizer and

query type recognizer to be used before execution of the query;

a query modifier that, before execution of the query, modifies the user

entered query based on the term grouping determined by the query term

recognizer and based on the query type determined by the query type

recognizer; and

   a query federation module that selects one or more data sources from the

plurality of data sources and causes execution the modified query on the one or

more selected data sources, a data source comprising a source of data that can

receive queries and execute the queries by searching for data of the data source

that matches the query.

Also, there is no motivation to combine Fries, Conklin, or any of the prior art of

record to meet these limitations. It is for these reasons that applicant's invention

defines over the prior art of record.

Claims 2-15 depend from claim 1 and are therefore also allowable.

Referring to claim 27, Bailey discloses for use with a search engine query

preprocessor, a computer readable storage medium comprising computer executable

instructions for executing a query made up of a string of query terms on one or more

selected data sources comprising:

- obtaining context information about the user entering the query;

- examining the query terms and automatically grouping terms based on the

  gathered context;

- examining the query terms and automatically categorizing the query as one of a

  plurality of query types based on the gathered context;

-   modifying the user entered query based on the term grouping and query type;
    and

-   selectively executing the modified query on the data sources.

Referring to claim 27, Fries discloses automatically grouping query terms after it
is determined that the query terms are intended as a phrase.

Referring to claim 27, Conklin (US Patent 6,405,190) discloses a query pre-
processing system wherein a user enters a free format search query composed of
terms. Conklin also discloses query preprocessing that includes identifying query terms
as one of many stored phrases, grouping the input query terms into groups or
categories of value terms, and modifying the user query before executing it (see
Summary of Conklin reference).

However, Neither, Bailey taken either alone or in obvious combination discloses
all of the claimed subject matter including:

For use with a search engine query preprocessor, a computer readable storage
medium comprising computer executable instructions for performing a process of
preparing for and executing a query made up of a string of query terms on one or more
selected data sources, a data source comprising a source of data that can receive
queries and execute the queries by searching for and returning data matching the
queries, the process comprising:

> obtaining context information about a user entering the query, the
> obtaining being performed before executing the query, wherein the query is a
> new query for which the user is requesting data corresponding to the query;
>
> examining the query terms and automatically grouping terms that are
> intended as a phrase based on the gathered context, the examining being
> performed before execution of the query;
>
> examining the query terms and automatically categorizing the query as
> one of a plurality of query types based on the gathered context, the classifying
> being performed before execution of the query;
>
> modifying the user entered query based on the term grouping and query
> type, the modifying being performed before executing the query; and
>
> selectively executing the modified query on one or more of the data
> sources, the executing comprising searching for data of the one or more data
> sources that matches the query.

Also, there is no motivation to combine Fries, Conklin, or any of the prior art of record to meet these limitations. It is for these reasons that applicant's invention defines over the prior art of record.

Claims 28-34 depend from claim 27 and are therefore also allowable.

Referring to claim 16, Bailey discloses for use with a search engine query preprocessor, a method that selectively executes a query made up of a string of query terms on a plurality of data sources comprising:

- obtaining context information about the origin of the query;

- automatically classifying the query as one of a set of query categories by selecting one of a set of query categories based on the presence of query terms and context information;

- automatically modifying the query to include the query category; and

- executing the modified query on a data source that contains information related to the query category.

Referring to claim 16, Conklin (US Patent 6,405,190) discloses a query pre-processing system wherein a user enters a free format search query composed of terms. Conklin also discloses query preprocessing that includes identifying query terms as one of many stored phrases, grouping the input query terms into groups or categories of value terms, and modifying the user query before executing it (see Summary of Conklin reference).

However, Neither, Bailey taken either alone or in obvious combination discloses *all of the claimed* subject matter including:

for use with a search engine query preprocessor, a method that selectively executes a query made up of a string of query terms on one or more of a plurality of

data sources, a data source comprising a source of data that can receive queries and execute the queries by searching for and returning data matching the queries, the method comprising:

obtaining context information about the origin of the query, before execution of the query, wherein the query is a new query for which the user is requesting data corresponding to the query;

automatically classifying the query as one of a set of query categories by selecting one of a set of query categories based on the presence of query terms and context information, the classifying being performed before execution of the query;

automatically modifying the query to include the query category, the modifying being performed before execution of the query; and

selecting one of the data sources based on the data source having data in the query category to which the query was classified, and causing execution of the modified query on the selected data source, the execution comprising searching for data of the data source that matches the query.

Also, there is no motivation to combine Conklin, or any of the prior art of record to meet these limitations. It is for these reasons that applicant's invention defines over the prior art of record.

Claim 35 is also allowable for the reasons stated above with respect to claim 16.

Claims 17-26 and 36-41 depend from claims 16 and 35 respectively, and are therefore also allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl M Shechtman who can be reached on (571) 272-4018. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Cheryl M Shechtman/   /Wilson Lee/
Examiner, Art Unit 2163   Primary Examiner, Art Unit 2163

August 5, 2008